U.S. Department of Education
Office of Educational Research and Improvement

Program of Research on Reading Comprehension
Pre-Application Meeting

April 22, 2002

U.S. Department of Education
Office of Educational Research and Improvement

Program of Research on Reading Comprehension Grants
Pre-Application Meeting
Agenda

April 22, 2002

1:00 – 1:20 Welcome and Introductions
Anne P. Sweet, Ed.D., Program Officer
Grover J. Whitehurst, Ph.D., Assistant Secretary of Education
Valerie Reyna, Ph.D., Senior Research Advisor

1:20 – 2:20 Program of Research on Reading Comprehension
Anne P. Sweet, Kathy Perkinson

- Program Overview
- Application Overview
- E-application process
- Q & A*

BREAK 2:20 – 2:30

2:30 - 3:30 Understanding Understanding: Dynamic Comprehension, Learning, and Memory

Thomas Trabasso, Ph.D.
Irving B. Harris Professor in Psychology
University of Chicago

3:30 – 4:00 General Q & A

*ED Resource persons: Ron Cartwright, Khriss Howard, Pat Knight, Elizabeth Payer

Application Checklist

Does your application include each of the following?

[ ] Title Page Form (ED 424)

[ ] Abstract

[ ] Research Narrative (respond to selection criteria)

[ ] Literature Cited

[ ] Curriculum Vitae of Principal Investigator (s) and Other Key Personnel

[ ] Budget Summary Form (ED 524) and Budget Narrative

[ ] Appendix

[ ] Statement of Equitable Access (GEPA 427 Statement)

[ ] Assurances and Certifications

Helpful Web Sites

Federal Register notice for the PRRC grant program

http://www.ed.gov/legislation/FedRegister/announcements/index.html

Downloadable application package (PDF or Word)

http://www.ed.gov/offices/OERI/news.html

Site where you will be able to access minutes of the pre-application meeting

http://www.ed.gov/offices/OERI/

E-application page

http://e-grants.ed.gov

What Should I Know About ED Grants? (A publication of the Dept of Ed)

http://www.ed.gov/pubs/KnowAbtGrants/

Education Department General Administrative Regulations (EDGAR)

http://www.ed.gov/offices/OCFO/grants/edgar.html

National Reading Panel Report: Teaching Children to Read

http://www.nationalreadingpanel.org/

Rand Reading Study Group Report: Reading for Understanding

http://www.rand.org/multi/achievementforall

Statistical Highlights of Student Achievement

Many of the most compelling findings in the field of education statistics feature student outcomes, especially educational achievement and school completion. Increasing focus on measuring student outcomes during the 1990s has coincided with booming enrollments. We now have record numbers of students in our elementary and secondary schools, as well as in our colleges and universities. Echoing the large growth in student enrollment at the secondary level during the 1990s, college enrollment is expected to rise by 16 percent over the next 10 years. High student achievement is important for successful college attendance, and a general expectation that we have for all students. Some of the most important topical areas where student outcomes have shown developments as well as challenges are: student assessments in academic areas; high school course taking; high school dropouts; and school completions. Two important perspectives on these topical areas are progress on providing equity in education, and how the United States compares to other nations. These highlights provide a brief overview of some of the recent National Center for Education Statistics (NCES) conducted and sponsored studies, which are explored in detail in reports available through the NCES web site.

Early Childhood Achievement

The Early Childhood Longitudinal Survey, Kindergarten Class of 1998-99 (ECLS-K) found that most first-time kindergartners (94 percent) can recognize some single-digit numerals, identify simple geometric figures like squares and circles, and count to 10 at the beginning of their school careers. Many of the children (58 percent) can recognize all single-digit numbers and count beyond 10. On the other hand, relatively fewer kindergartners (20 percent) can read a two-digit numeral; identify the ordinal position of an object (e.g., third flower in a row of flowers); or recognize the next number in a sequence (e.g., 2, 4, 6, 8, and 10).[1]

A majority of entering kindergartners (66 percent) can recognize letters of the alphabet by name, whether they are in upper or lower case. Many (61 percent) have two or more print familiarity skills such as knowing that English print is read from left to right and from the end of one line to the beginning of the next line and knowing where a story ends.

On average, girls' reading skills are slightly ahead of boys, but most girls and boys in kindergarten are at the first level of reading proficiency. Female and male kindergartners have similar average scores and score distributions in the ECLS-K assessments of mathematics and general knowledge. Though males may excel in math and science by middle and secondary school, no differences are apparent at school entry.[2] Although boys and girls have generally similar academic skills in kindergarten, boys display more developmental difficulties, more disruptive conduct in class, and less positive orientations to learning activities. Also, children who begin school with multiple risk factors, such as

having a mother who is a high school dropout or having parents whose primary language is not English, were already displaying lower achievement than other students.[3]

Mathematics Achievement

While mathematics achievement for 9-, 13-, and 17-year-olds is higher in 1999 than in 1973, large differences in mathematics achievement remain among white and minority groups. From 1973 to 1986, the gaps between Blacks and Whites narrowed at all three age groups but remained relatively stable in the 1990s.[4] The gap between Hispanic and White 13- and 17-year-old students narrowed between 1973 and 1999, but large differences still remain. More recent surveys of mathematics achievement provide an assessment of student performance levels. The percentage of 4th-grade students who were "below Basic," fell from 50 percent in 1990 to 31 percent in 2000. Most students were at or above Basic (69 percent in 2000). The percentage at or above Proficient doubled from 1990 to 2000, increasing from 13 percent to 26 percent. While 8th graders achieved similar results, recent trends for high school seniors have been mixed. Performance for 12th graders in 2000 was better than in 1990, but not as good as in 1996. Fifty-eight percent of 12th graders were at or above Basic in 1990. This percentage rose to 69 percent in 1996 but then fell to 65 percent in 2000. At the same time, the percentage at or above Proficient was higher in 2000 than in 1990 (17 percent as compared to 12 percent) and did not show a decline compared to 1996.[5]

Differences in scores from state to state are very large. The proportion of public school 8th graders achieving the proficient level in mathematics ranged from 6 percent in D.C. and 8 percent in Alabama to 37 percent in Montana and 40 percent in Minnesota.[6]

Reading Achievement

Reading achievement has shown little improvement for many years. While the 1999 scores for 9- and 13-year-olds were higher than those for 1971, the scores for 17-year-olds were about the same. The scores for 1999 were not significantly higher for any of the age groups compared to 1980.[7] A rigorous examination of 4th-grade student performance in 2000 found that 37 percent were below the Basic level in reading, while 63 percent were at or above Basic. Thirty-two percent were at or above Proficient, and 8 percent were Advanced. The percentages at or above Proficient for Whites (40 percent) and Asian/Pacific Islanders (46 percent) were higher than for Blacks (12 percent), Hispanics (16 percent), and American Indians (17 percent). A greater percentage of females scored at or above Proficient (36 percent) than males (27 percent).[8]

Science Achievement

Long-term trends in science achievement have shown mixed results. Scores for 9-year-olds were higher in 1999 than 1970, but scores for 13-year-olds were about the same, and scores for 17-year-olds were lower.[9] A study of the achievement levels for 4th-grade students in 1996 and 2000 showed no changes in the proportion attaining the Basic,

Proficient, and Advanced achievement levels from 1996 to 2000. The corresponding percentages for 8th-graders at the Proficient and Advanced levels did not change either, but the percentage of 8th graders at the Basic level decreased from 32 percent to 29 percent. The percentages of 12th-grade students attaining the Advanced, Proficient, and Basic achievement levels showed no changes from 1996 to 2000.[10] The results from the science assessment also indicated the substantial gaps between White compared to Black and Hispanic students noted in other assessments.

High School Course Taking

Many states have increased high school graduation requirements and students are taking more academic coursework. The average number of years of credit classes (Carnegie units) for public high school graduates in mathematics rose from 2.6 in 1982 to 3.2 in 1990 to 3.4 in 1998. The average years of science classes completed rose from 2.2 in 1982 to 2.8 in 1990 to 3.1 in 1998.[11] The proportion of students meeting the college-bound student recommendations of the National Commission on Excellence in Education (4 years of English, 3 years each of mathematics, social studies and science, 2 years of foreign language and one semester of computer science) rose from 2 percent in 1982 to 29 percent in 1998.[12] The increase in academic course work has been reflected by growth in the proportion of students taking specific rigorous courses. The proportion of graduates who had taken AP calculus rose from 2 percent in 1982 to 7 percent in 1998. The proportion of students who had completed 3 years of science including biology, chemistry and physics courses rose from 11 percent to 25 percent during the same period.[13]

High School Dropouts

High school dropout rates have declined slowly over the past three decades, but changes in recent years have not been significant. The dropout rate declined from 14 percent of all 16- to 24-year-olds in 1977 to 11 percent in 2000. Most of the decrease occurred between 1977 and 1990. In 2000, the dropout rate for White students was 7 percent compared to 13 for Black students and 28 percent for Hispanic students.[14]

Results of International Assessments

International assessment results provide insight as to how U.S. students compare to students in other countries. The findings show some consistent patterns. The general pattern is for U.S. students to score higher at lower grades than at upper grades, and to show stronger achievement in reading and science compared to mathematics. For example, in the 1994-95, Third International Mathematics and Science Study (TIMSS), U.S. 4th graders scored above the international average in both mathematics and science. However, at the 8th grade level, students in the U.S. scored below the average in mathematics and at the average in science. And, among students in the final year of high school, U.S. students were well below the average in both science and mathematics.[15] When the TIMSS assessment was repeated in 1999, it showed no overall change in U.S. 8th grade achievement and a fall-off in the U.S. comparative standing from 4th to 8th

grades, providing further evidence that U.S. performance is lower relative to their international peers as they enter the upper grades.[16]

More recent results from the 2000 Program for International Student Assessment (PISA) show similar findings. U.S. 15-year-olds scored about as well in reading literacy as 15-year-olds in most of the 27 participating OECD countries.[17] U.S. students also achieved similar results in both mathematics and science literacy: the U.S. average did not differ from the OECD average in either subject.[18] In contrast to average results for mathematics, science and reading literacy, U.S. students performed well in civic knowledge in 1999. U.S. 9th graders scored significantly above the international average on the total civic knowledge scale. No other country's students significantly outperformed U.S. students.[19]

Further International Indicators of Education Performance

International studies have also changed our views on some long-held perceptions of the U.S. education system. Many have thought that the range in performance among U.S. students was much greater than in other countries The PISA study found that while this is true for about half of the PISA countries, the other half of countries show student performance variation similar to the U.S. and the U.S. variation is not significantly different from the OECD average.[20]

Many have criticized international studies on the basis that relatively large proportions of U.S. students graduate from high school, and U.S. results reflect this larger pool of the population. However, data from the most recent *Education at a Glance* show that the U.S. proportion graduating from high school (78 percent) is just below the OECD average, and considerably below such other highly developed countries as Japan (95 percent) and Germany (92 percent). Unlike other countries, with the exception of Canada, large numbers of U.S. students complete high school through GED examinations, which are not counted in the graduation rate statistics.[21]

There have been long-term increases in the historically high proportion of young adults graduating from colleges in the U.S. This proportion has risen from 23 percent of 25- to 29-year-olds in 1990 to 29 percent in 2000. However, other countries have had substantial increases too. The U.S. graduation ratio is now exceeded by the United Kingdom, and approached by such countries as the Netherlands, New Zealand, and Japan.[22]

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All publications are from the U.S. Department of Education, National Center for Education Statistics, unless otherwise noted.

[1]*Condition of Education, 2000,* page xx.
[2]*Condition of Education, 2000,* page xix.
[3]*Condition of Education, 2000,* page xxxviii.
[4]*Condition of Education, 2001,* page 24.
[5] Dr. Gary W. Phillips, Release of The Nation's Report Card Mathematics 2000, August 2, 2001.
[6]*Digest of Education Statistics, 2001*, table 128.
[7]*Condition of Education, 2001,* page 21,
[8]Dr. Gary W. Phillips , The Release of the National Assessment of Educational Progress (NAEP) Fourth-Grade Reading, 2000, April 6, 2001.
[9]*Condition of Education, 2001,* page 127.
[10]Dr. Gary W. Phillips, The Release of the National Assessment of Educational Progress (NAEP) *The Nations' Report Card: Science 2000,* November 20, 2001.
[11]*Digest of Education Statistics, 2000* tables 138 and 154; and *Digest of Education Statistics, 1990*, table 142.
[12]*Digest of Education Statistics, 2000,* table 141.
[13]*Digest of Education Statistics, 2000,* table 140.
[14]*Digest of Education Statistics, 2001*, table 108.
[15]*Digest of Education Statistics, 2001,* page 462.
[16]*Highlights from the 2000 Program for International Students Assessment (PISA),* page 4.
[17]*Highlights from the Third International Mathematics and Science Study-Repeat* (TIMSS-R), page 2.
[18]*Highlights from the 2000 Program for International Students Assessment (PISA),* page 8.
[19]*Highlights of U.S. Results from the International IEA Civic Education Study,* page 2.
[20]*Highlights from the 2000 Program for International Students Assessment (PISA)*, page 4.).
[21]Organisation for Economic Co-Operation and Development, *OECD Indicators, 2001,* page 146.
[22]Organisation for Economic Co-Operation and Development, *OECD Indicators, 2001,* page 169.